



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,118	12/02/2003	Jeffrey J. Fitzgerald	CDPC-P01-003	4402
28120	7590	10/05/2007		
ROPES & GRAY LLP PATENT DOCKETING 39/41 ONE INTERNATIONAL PLACE BOSTON, MA 02110-2624			EXAMINER NGUYEN, PHUONGCHAU BA	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 10/05/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/727,118

Applicant(s)

FITZGERALD, JEFFREY J.

Examiner

Phuongchau Ba Nguyen

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7-10-6;11-4-4</u> . | 6) <input type="checkbox"/> Other: _____ |

Drawings

1. The drawings are objected to because all numbers in figure 1 should be labeled with descriptive legends; and 114 should be shown in figure 1.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required

corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (i.e., see page 7, line 4).

Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Claim Objections

3. Claim 4 is objected to because of the following informalities: "LLC" should be spelled out as ---Logical Link Control (LLC)---. Appropriate correction is required.

Claim Rejections – 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 5, 7-9, 11-13, 16-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Powers (US2005/0147107 A1).

Regarding claims 1, 12 and 17,

Powers (US2005/0147107 A1) discloses a method of improving network availability in a segmented network, comprising the steps of:

periodically transmitting a test message over a plurality of communication links from a source node in communication with a source network segment to a plurality of destination nodes, each of the plurality of destination nodes being in communication with a respective destination network segment (fig.3, steps 200-205 and see 0025 wherein a test cell is

transmitted one at a time—thus indicated the periodically test transmission, emphasis added);

generating, for each of the plurality of destination nodes, a return message if the test message is received at the destination node (fig.3, step 210);

determining the status of each of the plurality of communication links in response to the return messages generated by the plurality of destination nodes (fig.3, steps 225–230 & also see 0018, 0024–0028, wherein the loopback would identify the no-pass path via a code) ; and

providing the status of the plurality of communication links to each of the plurality of destination nodes that generated a return message (fig.3, steps 230 & 245).

Regarding claims 2, 18,

Powers further discloses wherein the step of determining the status further comprises indicating a fault in one of said one or more paths if said source node does not receive at least a predetermined number of return

messages from said destination nodes in response to a predetermined number of test messages transmitted to said destination nodes (fig.3, step 220 & also see 0024).

Regarding claims 3, 19,

Powers further discloses the step of configuring one of said paths between said source node and said one or more destination nodes in response to the determined status (fig.3, steps 230 & 245, also see 0018, 0024-0028).

Regarding claims 5, 16,

Powers further discloses wherein the return message is an echo message generated in response to the test message (fig.3, step 210, wherein loopback the test cell as return message—emphasis added).

Regarding claim 7,

Powers further discloses the step of updating a routing table in response to the determined status (fig.3, steps 230 & 245).

Regarding claim 8,

Powers further discloses wherein the step of configuring includes avoiding paths through dead links between nodes or paths connecting to unresponsive destination nodes (see 0006, wherein transmitting a test cell to avoid sending data along incorrect virtual channels—in other word, fault paths, emphasis added).

Regarding claim 9,

Powers further discloses wherein determining the status includes the steps of:

- waiting a pre-determined period of time for the return message from a destination node (fig.3, step 220), and

if the status of the destination node has changed, the source node updating a local adjacency status table, and propagating an updated routing table to other nodes on the segmented network (fig.3, steps 230 & 245).

Regarding claims 11, 13,

Powers further discloses wherein the test message is transmitted approximately once per second (see 0025 wherein test message is transmitted one at a time).

Claim Rejections – 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powers.

Regarding claims 6 and 14, Powers does not explicitly disclose the source and destination nodes are selected from the group of a host, a router, and a load balancer.

However, it would have been obvious to an artisan to implement the Powers's teaching to different network having nodes/devices/systems such as host, router, load balancer,..., .etc., to determine status of virtual channels and to avoid sending data on a fault path/channel. This is a common practice in the art.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Powers as applied to claim 1 above, and further in view of Ootake (JP401101751A).

Regarding claim 4, Powers discloses all the claimed limitations, except (1) wherein the test message is an LLC type 1 frame format.

However, in the same field of endeavor, Ootake (JP401101751A) discloses transmitting a test command LLC type 1, see constitution part of the

translation, corresponding to (1). Therefore, it would have been obvious to an artisan to apply Ootake's teaching to Powers's system with the motivation being to allow test equipment to communicate each terminal equipment thereby simplifying the constitution of the bridge.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Powers as applied to claim 1 above, and further in view of Stewart (4,745,593).

Regarding claim 10, Powers discloses all the claimed limitations, except (1) wherein said test message is not sent within the same segment.

However, in the same field of endeavor, Stewart (4,745,593) discloses sending a single test to detect faults and to localize faults between network nodes (abstract & see col.1, lines 58-63). Therefore, it would have been obvious to an artisan to apply Stewart's teaching to Powers's system with the motivation being to allow repair or replacement of defective equipment and to allow rapid packet routing adjustments to be made within the network.

Art Unit: 2616

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 571-272-3148. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Phuongchau Ba Nguyen
Examiner
Art Unit 2616



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800